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10/075,481	02/13/2002	Hideyuki Yamaguchi	2271/66770	8767

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EXAMINER

COLILLA, DANIEL JAMES

ART UNIT PAPER NUMBER

2854

DATE MAILED: 05/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/075,481

Applicant(s)

YAMAGUCHI, HIDEYUKI

Examiner

Daniel J. Colilla

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 2/14/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 12-19 is/are pending in the application.
- 4a) Of the above claim(s) 2,9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-8 and 12-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. The indicated allowability of claims 11-12 are withdrawn in view of the newly reconsidered reference(s) to Tanaka et al. (JP 8-332785) and Mori (JP 10-329445). Rejections based on the newly cited reference(s) follow.

### ***Claim Objections***

2. Claim 3 is objected to because of the following informalities: claim 3 depends from "claim 1 of claim 2." However, claim 2 has been withdrawn from consideration. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 12 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 12 recites that the cells in the porous resin layer have a honey combed structure. However, claim 12 depends from claim 1 which now recites that the cells have a multiplicity of walls and ceilings. The specification does not support both of these limitations in one

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embodiment. In paragraph [0021], lines 9-16 of applicant's specification, applicant discloses, "a honey combed structure equipped with walls 2b instead of the ceilings, and with the exception of the floor, as instanced in FIG. 2."

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 7, 8 and 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Mori (JP 10-329445).

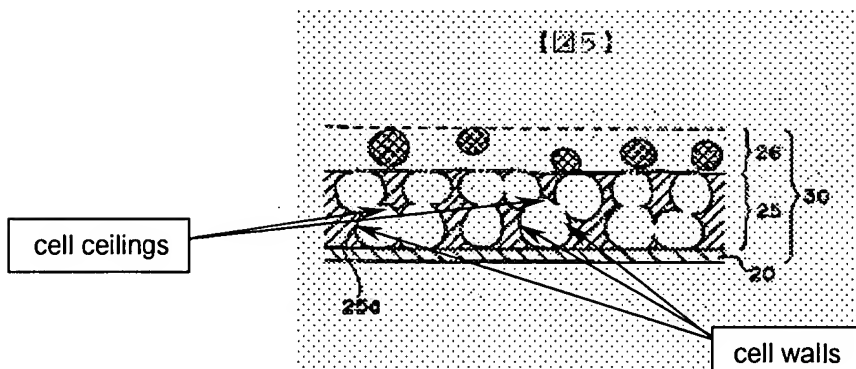
With respect to claims 1 and 17, Mori discloses a heat-sensitive stencil sheet having a porous resin layer 25 provided on a thermoplastic resin film 20 (see paragraph [0014] of the machine translation) and a porous fiber layer 26 on the surface of the porous resin layer 25 as shown in Figure 5 of Mori. In the last three lines of paragraph [0081] in the machine translation of Mori, Mori discloses that an adhesive was applied to the porous fiber film in order to laminate the porous resin film to the fiber film. In paragraphs [0101] and [0103] of the machine translation, Mori discloses that  $0.8\text{g/m}^2$  and  $0.4\text{g/m}^2$  of adhesive were used in two different examples. These values fall in the range of  $0.05\text{g/m}^2$  to  $1.5\text{g/m}^2$  as recited in claim 1. In paragraph [0010], in the last four lines of the machine translation, Mori discloses an adhesive strength between the porous fiber film and the porous resin layer as being 1-10g/25mm.

Converting the units of g/mm into N/m it is necessary to convert the mass into a force or weight.

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Using the acceleration of gravity equal to  $9.8\text{m/s}^2$ , Mori discloses the strength being in the range of .392 N/m- 3.92 N/m which at least partially falls in the range recited in claim 1.

Mori discloses that the porous resin layer includes a multiplicity of walls and ceilings which define cells as shown below in the Figure taken from Figure 5 of Mori:



With respect to claims 7-8, Mori discloses that the porous fiber layer can be  $3.5\text{g/m}^2$  as mentioned in Example 1 in paragraph [0079], lines 5-7 of the machine translation of Mori.

With respect to claim 13, Mori discloses granular shaped resin segments as shown in Figure 5.

With respect to claims 14 and 16, Mori discloses pore sizes of  $1\mu\text{m}$  -  $50\mu\text{m}$  as mentioned in paragraph [0037] of the machine translation of Mori which covers the range of  $5\mu\text{m}$  -  $20\mu\text{m}$ , and with respect to claim 16, at least a portion of the range disclosed by Mori falls between  $25\mu\text{m}$  -  $60\mu\text{m}$ .

With respect to claim 15, Figure 5 of Mori shows the pores connected in a depth direction and to a lesser degree in a transverse direction.

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***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (JP 10-329445) as applied to claims 1, 7, 8 and 13-17 above, and further in view of Matsuo et al.(US 4,981,746).

With respect to claim 3, the type of adhesive used by Mori is not known to the examiner. However, Matsuo et al. teaches that it is known to use an ionizing radiation-curable type adhesive to bond layers in a heat-sensitive stencil as described in col. 2, lines 6-10 of Matsuo et al. It would have been obvious to combine the teaching of Matsuo et al. with the heat-sensitive stencil sheet disclosed by Mori because the adhesive is of the non-solvent type which has the advantage that there is little impregnation of the solvent into the porous layers giving excellent image quality and image density. Moreover, ionization radiation curing is possible at low temperatures, and therefore the stencil can be produced without causing any deformation of the thermoplastic layer (Matsuo et al., col. 2, lines 18-24).

9. Claims 4-5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori(JP 10-329445).

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With respect to claims 4-5, Mori discloses the claimed stencil sheet except for the amount of the porous resin layer. However, the exact amount of the porous resin layer used would have been obvious to one of ordinary skill in the art through routine experimentation based on the properties of the porous resin layer and other factors of the heat-sensitive stencil sheet.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (JP 10-329445) as applied to claims 1, 7, 8 and 13-17 above, and further in view of Kobayashi (JP 06-135172)

Mori discloses the claimed heat-sensitive stencil sheet except for the porous resin layer being a foamy film. However, Kobayashi teaches a heat-sensitive stencil sheet that includes a foamy layer 1A as a porous layer. It would have been obvious to combine the teaching of Kobayashi with the heat-sensitive stencil sheet disclosed by Mori for the advantage of preventing the rear sheet of the stencil from becoming stained with ink. *Note: the method of forming the foamy film holds no patentable weight in a product claim.*

11. Claims 12 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (JP 10-329445) as applied to claims 1, 7, 8 and 13-17 above, and further in view of Tanaka et al. (8-332785).

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With respect to claim 12, Mori discloses the claimed heat-sensitive stencil sheet except for the honey combed structure of the cells in the porous resin layer. However, Tanaka et al. teaches a heat-sensitive stencil sheet with a thermoplastic resin film and a porous resin layer (referred to as the “wall-like coat” in the machine translation of Tanaka et al.) applied to one side

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of the thermoplastic resin film as shown in Figure 1 of Tanaka et al. Paragraph [0016] of the machine translation discloses resins from which the porous resin layer is made. The Constitution portion of the English abstract discloses that the porous resin layer has an aggregate of cells that can be honey combed shape. Figure 3 of Tanaka et al. shows this honey combed shape. It would have been obvious to combine the teaching of Tanaka et al. with the heat-sensitive stencil sheet disclosed by Mori for the advantage of a still stencil sheet that can be effectively perforated by a thermal head (see Advantage portion of the English Derwent abstract).

With respect to claim 18, Mori discloses a heat-sensitive stencil sheet having a porous resin layer 25 provided on a thermoplastic resin film 20 (see paragraph [0014] of the machine translation) and a porous fiber layer 26 on the surface of the porous resin layer 25 as shown in Figure 5 of Mori. In the last three lines of paragraph [0081] in the machine translation of Mori, Mori discloses that an adhesive was applied to the porous fiber film in order to laminate the porous resin film to the fiber film. Tanaka et al. discloses the honey combed cell structure as mentioned above with respect to claim 12.

With respect to claim 19, Figure 5 of Mori shows the pores connected in a depth direction and to a lesser degree in a transverse direction.

### ***Response to Arguments***

12. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.



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Upon examination of new claims 17-19, it was discovered that the references to Mori and Tanaka et al. teach more of the claimed invention than initially realized. Thus the above prior art rejections have been set forth. This rejection has been made non-final.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Colilla whose telephone number is (571) 272-2157. The examiner can normally be reached Mon.-Thur. between 7:30 am and 5:00 pm. Faxes regarding this application can be sent to (703) 872-9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached at (571) 272-2168. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 3, 2005



Daniel J. Colilla  
Primary Examiner  
Art Unit 2854